

Message

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**From:** d'Almeida, Carolyn K. [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9EC4401AFA1846DD93D52A0DDA973581-CDALMEID]  
**Sent:** 5/19/2017 5:39:03 PM  
**To:** Davis, Eva [Davis.Eva@epa.gov]; Bo Stewart [Bo@praxis-enviro.com]; Cosler, Doug [Doug.Cosler@TechLawInc.com]; 'Dan Pope' [DPope@css-inc.com]; Brasaemle, Karla [Karla.Brasaemle@TechLawInc.com]; Wayne Miller [Miller.Wayne@azdeq.gov]; Jennings, Eleanor [Eleanor.Jennings@parsons.com]; Steve Willis [steve@uxopro.com]  
**Subject:** RE: ST12 response

Yes, exactly why the concern. And model should account for that. And we need to know the City's pumping rates. Wayne, we should set up a call with City of Mesa Water District.

Carolyn d'Almeida  
Remedial Project Manager  
Federal Facilities Branch (SFD 8-1)  
US EPA Region 9  
(415) 972-3150

*"Because a waste is a terrible thing to mind..."*

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**From:** Davis, Eva  
**Sent:** Friday, May 19, 2017 10:18 AM  
**To:** d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Bo Stewart <Bo@praxis-enviro.com>; Cosler, Doug <Doug.Cosler@TechLawInc.com>; 'Dan Pope' <DPope@css-inc.com>; Henning, Loren <Henning.Loren@epa.gov>; Brasaemle, Karla <Karla.Brasaemle@TechLawInc.com>; Wayne Miller <Miller.Wayne@azdeq.gov>; Jennings, Eleanor <Eleanor.Jennings@parsons.com>; Steve Willis <steve@uxopro.com>  
**Subject:** RE: ST12 response

OK – but ambient temp modeling may give you a false sense of comfort -

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**From:** d'Almeida, Carolyn K.  
**Sent:** Friday, May 19, 2017 12:15 PM  
**To:** Davis, Eva <[Davis.Eva@epa.gov](mailto:Davis.Eva@epa.gov)>; Bo Stewart <[Bo@praxis-enviro.com](mailto:Bo@praxis-enviro.com)>; Cosler, Doug <[Doug.Cosler@TechLawInc.com](mailto:Doug.Cosler@TechLawInc.com)>; 'Dan Pope' <[DPope@css-inc.com](mailto:DPope@css-inc.com)>; Henning, Loren <[Henning.Loren@epa.gov](mailto:Henning.Loren@epa.gov)>; Brasaemle, Karla <[Karla.Brasaemle@TechLawInc.com](mailto:Karla.Brasaemle@TechLawInc.com)>; Wayne Miller <[Miller.Wayne@azdeq.gov](mailto:Miller.Wayne@azdeq.gov)>; Jennings, Eleanor <[Eleanor.Jennings@parsons.com](mailto:Eleanor.Jennings@parsons.com)>; Steve Willis <[steve@uxopro.com](mailto:steve@uxopro.com)>  
**Subject:** RE: ST12 response

Eva,

Its not about winning the argument, but giving the decision makers the information they need to assess what the future groundwater risk is and to be able to plan appropriately. If the model shows that off site migration wont be that significant I will feel a whole lot more comfortable with letting them proceed with full scale EBR. (what I'm really worried about now is what the PFAS data is going to look like – AF is supposed to sample in the coming months.)

Carolyn d'Almeida  
Remedial Project Manager  
Federal Facilities Branch (SFD 8-1)  
US EPA Region 9  
(415) 972-3150

*"Because a waste is a terrible thing to mind..."*

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**From:** Davis, Eva

**Sent:** Friday, May 19, 2017 7:11 AM

**To:** Bo Stewart <[Bo@praxis-enviro.com](mailto:Bo@praxis-enviro.com)>; Cosler, Doug <[Doug.Cosler@TechLawInc.com](mailto:Doug.Cosler@TechLawInc.com)>; 'Dan Pope' <[DPope@css-inc.com](mailto:DPope@css-inc.com)>; d'Almeida, Carolyn K. <[dAlmeida.Carolyn@epa.gov](mailto:dAlmeida.Carolyn@epa.gov)>; Henning, Loren <[Henning.Loren@epa.gov](mailto:Henning.Loren@epa.gov)>; Brasaemle, Karla <[Karla.Brasaemle@TechLawInc.com](mailto:Karla.Brasaemle@TechLawInc.com)>; Wayne Miller <[Miller.Wayne@azdeq.gov](mailto:Miller.Wayne@azdeq.gov)>; Jennings, Eleanor <[Eleanor.Jennings@parsons.com](mailto:Eleanor.Jennings@parsons.com)>; Steve Willis <[steve@uxopro.com](mailto:steve@uxopro.com)>

**Subject:** RE: ST12 response

This is getting longer than requested, and really even for me difficult to follow. In the second line, the definition of NAPL should be nonaqueous phase liquid.

On page 3 near the top it states that even with the more comprehensive Monod kinetics the TOR for the LSZ is 8 to 23 years. Really? That could be taken to mean that other remediation options (SEE) only needs to be considered in the UWBZ. Later on in the paragraph it talks some about how the box model assumes well mixed, ideal conditions that will not occur in the field, in particular this field situation that is far from being homogeneous and well mixed. Is there any way to estimate the TOR for the more realistic situation in the field?

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**From:** Bo Stewart [<mailto:Bo@praxis-enviro.com>]

**Sent:** Thursday, May 18, 2017 6:36 PM

**To:** Cosler, Doug <[Doug.Cosler@TechLawInc.com](mailto:Doug.Cosler@TechLawInc.com)>; 'Dan Pope' <[DPope@css-inc.com](mailto:DPope@css-inc.com)>; Davis, Eva <[Davis.Eva@epa.gov](mailto:Davis.Eva@epa.gov)>; d'Almeida, Carolyn K. <[dAlmeida.Carolyn@epa.gov](mailto:dAlmeida.Carolyn@epa.gov)>; Henning, Loren <[Henning.Loren@epa.gov](mailto:Henning.Loren@epa.gov)>; Brasaemle, Karla <[Karla.Brasaemle@TechLawInc.com](mailto:Karla.Brasaemle@TechLawInc.com)>; Wayne Miller <[Miller.Wayne@azdeq.gov](mailto:Miller.Wayne@azdeq.gov)>; Jennings, Eleanor <[Eleanor.Jennings@parsons.com](mailto:Eleanor.Jennings@parsons.com)>; Steve Willis <[steve@uxopro.com](mailto:steve@uxopro.com)>

**Subject:** Re: ST12 response

This all looks good to me, Doug did a great job sharpening the focus. I made a couple of minor edits (highlighted) and responded to some of the comments.

On 5/18/2017 4:11 PM, Cosler, Doug wrote:

Per Eleanor's suggestion I went ahead and created a "revision 2" copy of Bo's summary by "accepting" the changes in my edited version from earlier today. In the rev 2 copy I also added a few more changes in blue text. I believe I've addressed (or attempted to) the main comments of Eva and Dan from the main text of the memo. I didn't, however, do anything with their comments/questions in the last "study topics" section.

Doug

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**From:** Dan Pope [<mailto:DPope@css-inc.com>]

**Sent:** Thursday, May 18, 2017 11:31 AM

**To:** Cosler, Doug <[Doug.Cosler@TechLawInc.com](mailto:Doug.Cosler@TechLawInc.com)>; 'Davis, Eva' <[Davis.Eva@epa.gov](mailto:Davis.Eva@epa.gov)>; Bo Stewart <[Bo@praxis-enviro.com](mailto:Bo@praxis-enviro.com)>; d'Almeida, Carolyn K. <[dAlmeida.Carolyn@epa.gov](mailto:dAlmeida.Carolyn@epa.gov)>; Henning, Loren <[Henning.Loren@epa.gov](mailto:Henning.Loren@epa.gov)>; Brasaemle, Karla <[Karla.Brasaemle@TechLawInc.com](mailto:Karla.Brasaemle@TechLawInc.com)>; Wayne Miller <[Miller.Wayne@azdeq.gov](mailto:Miller.Wayne@azdeq.gov)>; Jennings, Eleanor <[Eleanor.Jennings@parsons.com](mailto:Eleanor.Jennings@parsons.com)>; Steve Willis <[steve@uxopro.com](mailto:steve@uxopro.com)>

**Subject:** RE: ST12 response

A couple of comments, most of which are not actionable, added to Eva's comments.

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**From:** Cosler, Doug [<mailto:Doug.Cosler@TechLawInc.com>]

**Sent:** Thursday, May 18, 2017 8:56 AM

**To:** 'Davis, Eva'; Bo Stewart; d'Almeida, Carolyn K.; Henning, Loren; Dan Pope; Brasaemle, Karla; Wayne Miller; Jennings, Eleanor; Steve Willis

**Subject:** RE: ST12 response

I'm looking at this summary again this morning and will try to address as many of Eva's comments as I can.

Doug

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**From:** Davis, Eva [<mailto:Davis.Eva@epa.gov>]

**Sent:** Wednesday, May 17, 2017 5:02 PM

**To:** Bo Stewart <[Bo@praxis-enviro.com](mailto:Bo@praxis-enviro.com)>; d'Almeida, Carolyn K. <[dAlmeida.Carolyn@epa.gov](mailto:dAlmeida.Carolyn@epa.gov)>; Henning, Loren <[Henning.Loren@epa.gov](mailto:Henning.Loren@epa.gov)>; 'Dan Pope' <[DPope@css-inc.com](mailto:DPope@css-inc.com)>; Brasaemle, Karla <[Karla.Brasaemle@TechLawInc.com](mailto:Karla.Brasaemle@TechLawInc.com)>; Cosler, Doug <[Doug.Cosler@TechLawInc.com](mailto:Doug.Cosler@TechLawInc.com)>; Wayne Miller <[Miller.Wayne@azdeq.gov](mailto:Miller.Wayne@azdeq.gov)>; Jennings, Eleanor <[Eleanor.Jennings@parsons.com](mailto:Eleanor.Jennings@parsons.com)>; Steve Willis <[steve@uxopro.com](mailto:steve@uxopro.com)>

**Subject:** RE: ST12 response

A few comments inserted in the document -

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**From:** Bo Stewart [<mailto:Bo@praxis-enviro.com>]

**Sent:** Wednesday, May 17, 2017 2:48 PM

**To:** d'Almeida, Carolyn K. <[dAlmeida.Carolyn@epa.gov](mailto:dAlmeida.Carolyn@epa.gov)>; Henning, Loren <[Henning.Loren@epa.gov](mailto:Henning.Loren@epa.gov)>; Davis, Eva <[Davis.Eva@epa.gov](mailto:Davis.Eva@epa.gov)>; 'Dan Pope' <[DPope@css-inc.com](mailto:DPope@css-inc.com)>; Brasaemle, Karla <[KBrasaemle@TechLawInc.com](mailto:KBrasaemle@TechLawInc.com)>; Cosler, Doug <[Doug.Cosler@TechLawInc.com](mailto:Doug.Cosler@TechLawInc.com)>; Wayne Miller <[Miller.Wayne@azdeq.gov](mailto:Miller.Wayne@azdeq.gov)>; Jennings, Eleanor <[Eleanor.Jennings@parsons.com](mailto:Eleanor.Jennings@parsons.com)>; Steve Willis <[steve@uxopro.com](mailto:steve@uxopro.com)>

**Subject:** Re: ST12 response

Hi All,

Attached is the summary that Doug and I came up with. I also added an outline and made some edits to make the memo a little more readable. That is also attached. Please comment on/edit the summary to make it more understandable. We added some interpretative language that does not appear in the memo to get the point across although held back adding that these time estimates are still optimistic as they assume the degradation goes flawlessly.

Bo

On 5/11/2017 3:48 PM, d'Almeida, Carolyn K. wrote:

**d'Almeida, Carolyn K. has invited you to ST12 response**

Title: ST12 response

Location: Dial-In Number(s): (866) 299-3188 Conference Code: 4159722020

When: Tuesday, May 16, 2017 10:30 AM – 12:00 PM

Organizer: d'Almeida, Carolyn K. <[dAlmeida.Carolyn@epa.gov](mailto:dAlmeida.Carolyn@epa.gov)>

Description: Dial-In Number(s): (866) 299-3188 Conference Code: 4159722020

Comment:

Attendees: Henning, Loren <[Henning.Loren@epa.gov](mailto:Henning.Loren@epa.gov)>  
Davis, Eva <[Davis.Eva@epa.gov](mailto:Davis.Eva@epa.gov)>  
'Dan Pope' <[DPope@css-inc.com](mailto:DPope@css-inc.com)>  
Brasaemle, Karla <[KBrasaemle@TechLawInc.com](mailto:KBrasaemle@TechLawInc.com)>  
Cosler, Doug <[Doug.Cosler@TechLawInc.com](mailto:Doug.Cosler@TechLawInc.com)>  
Wayne Miller <[Miller.Wayne@azdeq.gov](mailto:Miller.Wayne@azdeq.gov)>  
Jennings, Eleanor <[Eleanor.Jennings@parsons.com](mailto:Eleanor.Jennings@parsons.com)>  
Bo Stewart <[Bo@praxis-enviro.com](mailto:Bo@praxis-enviro.com)>  
R9SF-ConferenceLine-SFD-Card2 <[R9SF-ConferenceLine-SFD-Card2@epa.gov](mailto:R9SF-ConferenceLine-SFD-Card2@epa.gov)>

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Lloyd "Bo" Stewart, PhD, PE  
Praxis Environmental Tech., Inc.

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Lloyd "Bo" Stewart, PhD, PE  
Praxis Environmental Tech., Inc.